(12) DEMANDE INTERNATIONALE PUBLIÉE EN VERTU DU TRAITÉ DE COOPÉRATION EN MATIÈRE DE BREVETS (PCT)

(19) Organisation Mondiale de la Propriété Intellectuelle
Bureau international

(43) Date de la publication internationale
26 février 2004 (26.02.2004)

PCT

(10) Numéro de publication internationale
WO 2004/016995 A1

(51) Classification internationale des brevets[7] : F24H 1/43, 1/16, F28D 7/02

(21) Numéro de la demande internationale : PCT/FR2003/001698

(22) Date de dépôt international : 6 juin 2003 (06.06.2003)

(25) Langue de dépôt : français

(26) Langue de publication : français

(30) Données relatives à la priorité :
02/09647 30 juillet 2002 (30.07.2002) FR

(71) Déposant et
(72) Inventeur : LE MER, Joseph [FR/FR]; Ty Nod, F-29600 Morlaix (FR).

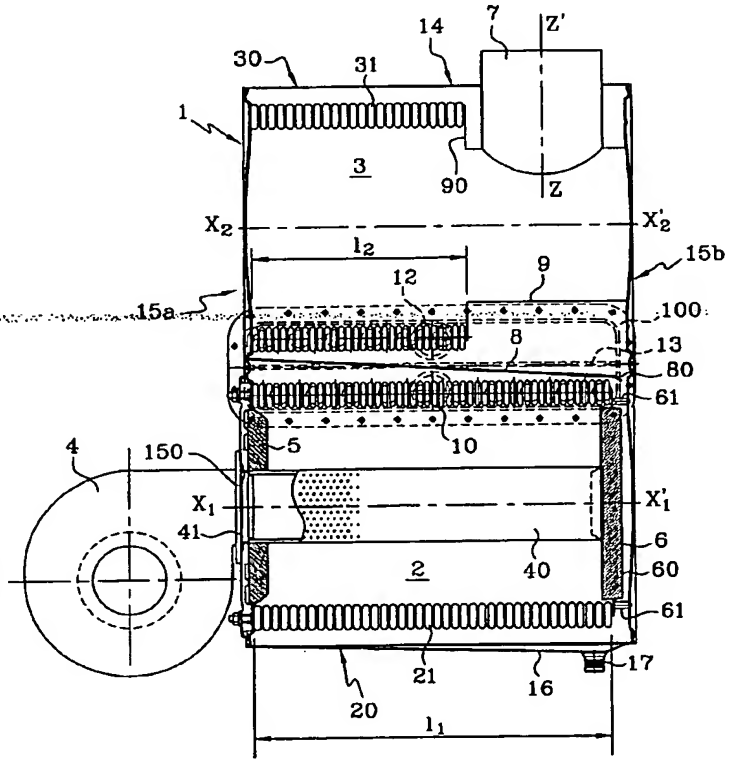
(74) Mandataire : CABINET REGIMBEAU; Espace Performance, Bâtiment K, F-35769 Saint Gregoire Cedex (FR).

(81) États désignés *(national)* : AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Suite sur la page suivante]

(54) Title: CONDENSING HEAT EXCHANGER WITH DOUBLE BUNDLE OF TUBES

(54) Titre : ECHANGEUR DE CHALEUR A CONDENSATION A DOUBLE FAISCEAU DE TUBES



(57) Abstract: The invention relates to a heat exchanger comprising a pair of tube bundles (21, 31) through which the fluid to be heated flows, one primary bundle (21) surrounding a cylindrical burner (40) and the other secondary bundle (31) on which the water steam contained in the combustion gas exhausting from the primary bundle is condensed, whereby the tubes forming the bundles have a flattened section and a helicoidal shape, such that the combustion gas flow between the coils, from the inside to the outside for the primary bundle (21) and in the reverse order for the secondary bundle (31), both bundles being arranged inside a same shell (1). Said heat exchanger is characterised in that the axial dimension (l_2) of the secondary bundle is substantially smaller than the axial dimension (l_1) of the primary bundle, such that an available space for an exhaust trunking (7) is provided at the end of said secondary bundle (31). The present invention also relates to a gas- or oil-fired boiler, especially for domestic application, with high efficiency, space saving and reduced weight.

[Suite sur la page suivante]

WO 2004/016995 A1